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**UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
(SAN JOSE DIVISION)**

VOIP-PAL.COM, INC.,

Plaintiff,

v.

APPLE, INC.,

Defendant.

Case No. 18-cv-06217-LHK

**VOIP-PAL'S OPPOSITION TO
DEFENDANTS' CONSOLIDATED
MOTION TO DISMISS PLAINTIFF'S
COMPLAINT: MEMORANDUM OF
POINTS AND AUTHORITIES IN
SUPPORT (CORRECTED)**

Date: March 21, 2019
Time: 1:30 p.m.
Courtroom: 8 – 4th Floor
Judge Lucy H. Koh

1 VOIP-PAL.COM, INC.,

2 *Plaintiff,*

3 v.

4 AT&T CORP.,

5 *Defendant.*

Case No. 18-cv-06177-LHK

7 VOIP-PAL.COM, INC.,

8 *Plaintiff,*

9 v.

10 TWITTER INC.,

11 *Defendant.*

Case No. 18-cv-04523-LHK

13 VOIP-PAL.COM, INC.,

14 *Plaintiff,*

15 v.

16 VERIZON WIRELESS SERVICES, LLC, et al.,

17 *Defendant.*

Case No. 18-cv-06054-LHK

TABLE OF CONTENTS

I. INTRODUCTION.....1

II. ARGUMENT.....3

 A. UNDER STEP ONE, THE CLAIMS ARE NOT DIRECTED TO AN ABSTRACT IDEA....3

 1. The Claimed Inventions Improve Call Router Controller Technology.....5

 2. The Claims Are Not Directed to Acquiring, Analyzing and Presenting Information.....11

 3. Defendants’ “Brick and Mortar” and “Pen and Paper” Arguments Fail.....16

 B. STEP 2: THE ASSERTED CLAIMS RECITE INVENTIVE CONCEPTS.....18

 1. Using Caller Attributes to Utilize Callee Identifiers to Transparently Route Calls
Between Private/Public Networks Is Unconventional.....18

 2. The Claimed Solution Solves Problems Rooted in Computer Network Technology.....23

 C. NUMEROUS FACTUAL DISPUTES SHOW THIS RULE 12(B)(6) MOTION
IS PREMATURE.....24

III. CONCLUSION.....25

TABLE OF AUTHORITIES

CASES

24/7 Customer, Inc. v. LivePerson, Inc., Case No. 15-cv-02897-JST, 2017 WL 2311272 (N.D. Cal. May 25, 2017).....	16
Ultramercial, Inc. v. Hulu, LLC, 772 F.3d 709 (Fed. Cir. 2014).....	27
Aatrix Software, Inc. v. Green Shades Software, Inc., No. 2017-1452, 2018 WL 843288 (Fed. Cir. Feb. 14, 2018)	9
Accenture Global Servs., GmbH v. Guidewire Software, Inc., 728 F.3d 1336 (Fed. Cir. 2013)	8
Alice Corp. v. CLS Bank Int'l 134 S. Ct. 2347 (2014).....	4, 22, 23, 25
Amdocs (Israel) Ltd. v. Openet Telecom, Inc., 841 F.3d 1288 (Fed. Cir. 2016).....	22, 29
Aristocrat Technologies Australia Pty Ltd. v. Int'l Game Tech., 521 F.3d 1328 (Fed. Cir. 2008)	19
Ashcroft v. Iqbal, 556 U.S. 662 (2009)	6
Avocent Huntsville, LLC v. ZPE Sys., Inc., No. 3:17-CV-04319-WHO, 2018 WL 1411100 (N.D. Cal. Mar. 21, 2018).....	27
Bascom Research, LLC v. LinkedIn, Inc., 77 F. Supp. 3d 940 (N.D. Cal. 2015)	2, 22, 23, 26
Bell Atl. Corp. v. Twombly, 550 U.S. 544 (2007)	6
Berkheimer v. HP Inc., 881 F.3d 1360 (Fed. Cir. 2018).....	9, 31
Broadsoft, Inc. v. Callwave Commc'ns, LLC, 282 F. Supp. 3d 771 (D. Del. 2017).....	17
Card Verification Solutions, Inc. v. Citigroup, No. 13-cv-06339, 2014 WL 4922524 (N.D. Ill. Sept. 29, 2014)	2
Cogent Medicine, Inc. v. Elsevier Inc., 70 F. Supp. 3d 1058 (N.D. Cal. 2014).....	24
Content Extraction & Transmission LLC v. Wells Fargo Bank, N.A., 776 F.3d 1343 (Fed. Cir. 2014)	8
Core Wireless Licensing S.A.R.L. v. LG Elecs., Inc., 880 F.3d 1356 (Fed. Cir. 2018).....	11, 15
CyberFone Sys., LLC v. CNN Interactive Group, Inc., 558 Fed. Appx. 988 (Fed. Cir. 2014).....	28
CyberSource Corp. v. Retail Decisions, Inc., 654 F.3d 1366 (Fed. Cir. 2018)	27
Data Engine Techs. LLC v. Google LLC, 906 F.3d 999 (Fed. Cir. 2018)	13
DDR Holdings LLC v. Hotels.com, L.P., 773 F.3d 1245 (Fed. Cir. 2014)	22, 23, 29
Diamond v. Diehr, 450 U.S. 175 (1981).....	4, 5, 13, 24
Elec. Power Grp., LLC v. Alstom S.A., 830 F.3d 1350 (Fed. Cir. 2016)	16, 26

	<i>Enfish v. Microsoft Corp.</i> , 822 F.3d 1327 (Fed. Cir. 2016).....	13
1	<i>Evolved Wireless, LLC v. Apple Inc.</i> , 221 F. Supp. 3d 485 (D. Del. 2016).....	11
2	<i>FairWarning IP, LLC v. Iatric Systems, Inc.</i> , 839 F.3d 1089 (Fed. Cir. 2016)	16
3	<i>Finjan, Inc. v. Blue Coat Sys., Inc.</i> , 879 F.3d 1299 (Fed. Cir. 2018)	23, 24
4	<i>Geinosky v. City of Chicago</i> , 675 F.3d 743 (2012).....	30
5	<i>Genband US LLC v. Metaswitch Networks Corp.</i> , No. 2:14-cv-33-JRG-RSP, 2016 U.S. Dist. LEXIS	
6	37946 (E.D. Tex., Jan. 6, 2016).....	7
7	<i>Huawei Techs., Co, Ltd v. Samsung Elecs. Co, Ltd.</i> , 340 F. Supp. 3d 934 (N.D. Cal. 2018)	4
8	<i>Immersion Corp. v. Fitbit, Inc.</i> , 313 F.Supp. 3d 1005 (N.D. Cal. 2018)	16
9	<i>In re Alappat</i> , 33 F.3d 1526 (Fed. Cir. 1994)	19
10	<i>In re TLI Commc'ns LLC Patent Litig.</i> , 823 F.3d 607 (Fed. Cir. 2016).....	12, 13, 16
11	<i>Intellectual Ventures I LLC v. Symantec Corp.</i> , 838 F.3d 1318 (Fed. Cir. 2016)	28
12	<i>Intellectual Ventures II LLC, v. BITCO General Insurance Corp.</i> , Case No. 6:18-cv-00298, 00299,	
	2019 WL 313207 (E.D. Tex. Jan. 24, 2019).....	21
13	<i>Interval Licensing LLC v. AOL, Inc.</i> , 896 F.3d 1335 (Fed. Cir. 2018).....	12
14	<i>Lawther v. OneWest Bank, FSB</i> , No. C-10-00054 JCS, 2012 U.S. Dist. LEXIS 12062 (N.D. Cal. Feb.	
15	1, 2012)	22
16	<i>Le Roy v. Tatham</i> , 55 U.S. 156 (1852).....	3
17	<i>Lee v. City of Los Angeles</i> , 250 F.3d 668 (9th Cir. 2001).....	22
18	<i>Mackay Radio & Telegraph Co. v. Radio of America</i> , 306 U.S. 86 (1939)	4
19	<i>McRO, Inc. v. Bandai Namco Games America Inc.</i> , 837 F.3d 1299 (Fed. Cir. 2016).....	15
20	<i>Meetrix IP, LLC v. Citrix Systems, Inc.</i> , Case No. 1-16-cv-1033-LY, 2017 WL 5653950 (N.D. Cal.	
	July 27, 2017).....	28
21	<i>Messaging Gateway Sols., LLC v. Amdocs, Inc.</i> , No. CV 14-732-RGA, 2015 WL 1744343 (D. Del.	
22	Apr. 15, 2015)	29
23	<i>Parker v Flook</i> , 437 U.S. 584 (1978).....	3, 4
24	<i>Parus Holdings, Inc. v. Sallie Mae Bank</i> , 137 F. Supp. 3d 660 (D. Del. 2015)	17
25	<i>Pragmatus Telecom, LLC v. Genesys Telecomms. Labs., Inc.</i> , 114 F. Supp. 3d 192 (D. Del. 2015).....	16
26	<i>Procter & Gamble Co. v. QuantifiCare Inc.</i> , 288 F. Supp. 3d 1002 (N.D. Cal. 2017)	19
27	<i>Pure Data Sys., LLC v. Ubisoft, Inc.</i> , 329 F. Supp. 3d 1054 (N.D. Cal. 2018)	20
28	<i>Rapid Litigation Management Ltd., v. CellzDirect, Inc.</i> , 827 F.3d 1042 (Fed. Cir. 2016).....	6

1	<i>Ronald A. Katz Tech. Licensing, L.P. v. FedEx Corp.</i> , No. 2:15-cv-02329-JPM-tmp, 2016 U.S. Dist. LEXIS 38479 (W.D. Tenn. Mar. 24, 2016).....	7
2	<i>Shaterian v. Wells Fargo Bank</i> , Case No. C-11-920 SC, 2011 U.S. Dist. LEXIS 62165 (N.D. Cal. June 10, 2011)	22
3	<i>Telinit Techs., LLC v. Alteva, Inc.</i> , No. 2:14-CV-369, 2015 WL 5578604 (E.D. Tex. Sept. 21, 2015)...	16
4	<i>Thales Visonix Inc. v. United States</i> , No. 2015-5150, 2017 WL 914618 (Fed. Cir. Mar. 8, 2017).....	6
5	<i>Twilio, Inc. v. Telesign Corporation</i> , Case No. 16-cv-06925-LHK, 2017 WL 1208588 (N.D. Cal. March 31, 2017).....	7
6	<i>Two-Way Media Ltd. v. Comcast Cable Commc'ns, LLC</i> , 874 F.3d 1329 (Fed. Cir. 2017)	14
7	<i>Ultramercial, Inc. v. Hulu, LLC</i> , 722 F.3d 1335 (Fed. Cir. 2013).....	4
8	<i>Vaporstream, Inc. v. Snap Inc.</i> , No. 2:17-cv-00220-MLHKSX, 2018 WL 1116530 (C.D. Cal. Feb. 27, 2018)	31
9	<i>Visual Memory LLC v. NVIDIA Corp.</i> , 867 F.3d 1253 (Fed. Cir. 2017).....	25
10	<i>West View Research, LLC v. Audi AG</i> , 685 F App'x 923 (Fed. Cir. 2017).....	16
11	<i>WMS Gaming Inc. v. International Game Technology</i> , 184 F.3d 1339 (Fed. Cir. 1999).....	19

STATUTES

12	35 U.S.C. § 101	passim
13	Fed. R. Civ. P. 56.....	30
14	Fed. R. Civ. Proc. 12(b)(6).....	passim

Pursuant to Fed. R. Civ. P. 12, Plaintiff VoIP-Pal, Inc. (“VoIP-Pal” or “Plaintiff”) files this response in opposition to Defendants’ Consolidated Motion to Dismiss for failure to state a claim under 35 U.S.C. § 101 (ECF No. 63¹ also referred to herein as the “Motion”). VoIP-Pal’s opposition is made in conjunction with the Declaration of Kevin N. Malek (“Malek Decl.”) and the Declaration of William Henry Mangione-Smith (“Mangione-Smith Decl.”). VoIP-Pal respectfully requests denial of the Motion.

I. INTRODUCTION

Defendants ask this Court to invalidate every asserted claim of the Patents-in-Suit at the motion to dismiss stage before construction of any claim and in the absence of any factual record. But this is not the first time VoIP-Pal has faced a challenge to its patents. First, the claims of the Patents-in-Suit were argued to be invalid in view of prior art challenges brought by both Apple, Inc. and AT&T Corp. in *Inter Partes Review* proceedings before the Patent Trial and Appeal Board in the United States Patent and Trademark Office. With VoIP-Pal having overcome those challenges, Verizon Wireless and AT&T Corp., only months ago, filed separate motions to dismiss under Fed. R. Civ. Proc. 12(b)(6), alleging the asserted claims were invalid under 35 U.S.C. § 101. In view of evidence submitted by VoIP-Pal in the form of proposed amendments to its complaints, both Verizon Wireless and AT&T Corp. withdrew their motion(s) to dismiss, declining to argue that the amendments were futile, leading to only one obvious conclusion – that the modest development of the record defeated their early stage attempt to rush this case out of court before VoIP-Pal could defend its United States Patents. The bottom line is that the claims are not ineligible under 35 U.S.C. § 101 and the Motion must be denied for at least the following reasons:

¹ Defendants have filed an identical Motion in each of the captioned actions. For the Court’s convenience, references herein to ECF numbers are to the ECF numbers in the case styled *VoIP-Pal.com, Inc. v. AT&T Corp.*, Case No. 18-cv-06177-LHK (N.D. Cal.). The various complaints are as set forth in Defendants’ Motion at FN 1.

1 **First**, the asserted claims are not directed to an abstract idea, but are instead generally directed
 2 to an improved call routing technology enabling better interoperability of communication networks
 3 by, *inter alia*, evaluating a callee identifier provided by a caller in conjunction with caller-specific
 4 “attributes” located from a profile associated with the caller, to identify and classify an intended
 5 destination, as between two networks, and based on the classification, producing a routing message to
 6 setup a call controller to establish the call to the intended destination via identified suitable network
 7 communication infrastructure;

8
 9 **Second**, the asserted claims constitute an improvement in call controller technology and are
 10 conceptually inventive, because the claims enable transparent routing of calls integrated over private
 11 and public networks based upon caller-specific profile information *in conjunction with* information
 12 about the callee; and

13
 14 **Third**, the Motion is premature in that there are numerous factual disputes made of issue by
 15 the Motion and due to the nature of the evidence that VoIP-Pal would elicit during discovery as
 16 identified in VoIP-Pal’s proffer of evidence submitted herewith.

17 Defendants fail to even acknowledge the heavy burden they bear on their Motion, namely, to
 18 prove invalidity by “*clear and convincing evidence*.” *Bascom Research, LLC v. LinkedIn, Inc.*, 77 F.
 19 Supp. 3d 940, 945 (N.D. Cal. 2015) (emphasis added); *see also Card Verification Solutions, Inc. v.*
 20 *Citigroup*, No. 13-cv-06339, 2014 WL 4922524, at *2 (N.D. Ill. Sept. 29, 2014) (“dismissal is
 21 appropriate solely when the *only* plausible reading of the patent is that there is *clear and convincing*
 22 *evidence* of ineligibility” (emphasis added)). Yet Defendants rely on *unsupported* factual allegations
 23 for key arguments and summarily dismiss *contrary* material facts asserted in VoIP-Pal’s Complaint.²
 24 The Court should deny the current motion to dismiss because Defendants have not met their burden.
 25

26
 27 ²Because this Motion is consolidated, VoIP-Pal references only the Third Amended Complaint
 28 (referred to herein as “Complaint”) filed in the AT&T Action, Case No. 5:18-cv-6177-LHK (ECF.
 No. 59). *See* Malek Decl., Exhibit 1. To not burden the Court with additional filings, VoIP-Pal has
 not amended each complaint in each action with identical allegations but would do so if given

II. ARGUMENT

A. Under Step One, The Claims Are Not Directed To An Abstract Idea.

An abstract idea under §101 “is a fundamental truth; an original cause; a motive.” (*Parker v. Flook*, 437 U.S. 584, 589 (1978) (citing *Le Roy v. Tatham*, 55 U.S. 156, 175 (1852))). The Patents-In-Suit are directed to improvements in clearly non-abstract technology, namely, a call routing controller specifically programmed to integrate private networks (*e.g.*, Internet-based telephony) with public networks (*e.g.*, the public switched telephone networks or “PSTN”) in a *new* and *useful* way. Defendants’ characterization of the claims as simply obtaining and analyzing participant information to determine where to route a communication dramatically understates the problem that the claims address.³ (*See* Motion at p. 13). Courts have cautioned against evaluating claims at a stripped-down level of generality as Defendants have done. As the Supreme Court recognized, “[a]t some level all inventions embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.” *Alice Corp. v. CLS Bank Int’l* 134 S. Ct. 2347, 2354 (2014) (internal citations omitted); *See also Ultramercial, Inc. v. Hulu, LLC*, 722 F.3d 1335, 1344 (Fed. Cir. 2013) (subsequent history omitted). At best, some, but not all, claim steps *involve* “gathering and processing information” as part of the routing process through an improved call routing controller. But the Supreme Court has made clear that claims directed to an improved process of doing something is not barred by § 101, notwithstanding a claim’s incorporation of a law of nature, natural phenomenon or an abstract concept. *See, e.g., Diamond v. Diehr*, 450 U.S. 175, 188 (1981); *see also Parker v Flook*, 437 U.S.

permission and if necessary to the Court’s analysis of the Motion. Accordingly, VoIP-Pal attaches the Third Amended Complaint in the AT&T action as an Exhibit to this Brief to be filed in each case in order to preserve the record. If the Court desires that VoIP-Pal make the same information of record in each case through amended complaints, then VoIP-Pal respectfully requests permission to amend its complaint in each case to do so. *See Aatrix Software, Inc. v. Green Shades Software, Inc.*, No. 2017-1452, 2018 WL 843288 (Fed. Cir. Feb. 14, 2018).

³ Defendants do not draw any distinction in their analysis for Claim 1 of the ‘815 Patent versus Claim 74 of the ‘005 Patent. The latter differs from the ‘815 Patent’s claim 1 in reciting, *inter alia*, “first” and “second” *portions* of a network, not controlled by the same “entity”. Accordingly, the analysis in this brief focuses primarily on Claim 1 of the ‘815 Patent. (*Compare* Malek Decl., Exhibit 2 (‘815 Patent) with Exhibit 3 (‘005 Patent)).

1 584, 590 (1978).

2 Defendants have focused on a subset of claim limitations to distort the character of the
3 ordered combination as a whole. That is error. The Supreme Court has mandated that “claims must be
4 considered as a whole,” which is “particularly true in a process claim because a new combination of
5 steps in a process may be patentable even though all of the constituents of the combination were well
6 known and in common use before the combination was made”. *Diamond v. Diehr*, 450 U.S. at 188;
7 *see also Mackay Radio & Telegraph Co. v. Radio of America*, 306 U.S. 86, 94 (1939); *see also*
8 *Huawei Techs., Co, Ltd v. Samsung Elecs. Co, Ltd.*, 340 F. Supp. 3d 934, 980 (N.D. Cal. 2018)
9 (rejecting § 101 challenge where the defendant failed “to address the claims as a whole and ignore[d]
10 the patent’s disclosure of providing an improvement to telecommunication systems”).

12 The failure of Defendants’ challenge is exemplified in their false “operator,” “mental steps”
13 and “pen and paper” analogies. (*See* Motion at 17-19; *see also infra*). The Patents-in-Suit do not
14 claim “fundamental economic practice[s],” “longstanding commercial practice[s]” or “method[s] of
15 organizing human activity”. *Id.* at 17. Defendants are well-aware of the patent prosecution history and
16 *eight inter partes* reviews filed against the Patents-in-Suit based on prior art disclosing making
17 routing decisions.⁴ And yet, following careful review, the U.S. Patent and Trademark Office *rejected*
18 all of the cited communication routing art as not rendering the Patents-in-Suit invalid. ***Clearly,***
19 ***numerous inter-network routing methods exist which do not practice the Patents-in-Suit.*** The
20 claims at issue do not preempt the field of routing controllers and communication network routing.
21 An improved controller that routes communications in a novel manner by using caller-specific
22 attributes to evaluate a callee identifier against specific criteria to identify and route to a private
23 network destination (*e.g.*, a VoIP phone) or public network destination (*e.g.*, a PSTN phone) via the
24

27 ⁴ IPR2016-01201 and IPR2016-01198, filed by Apple (final written decisions upholding validity of
28 all challenged claims); IPR2017-01383, IPR2017-01384 and IPR2017-01385, filed by AT&T (all
denied institution); and IPR2016-01082, filed by Unified Patents (denied institution).

correct network infrastructure, does *not* represent an abstract idea, or a fundamental truth, or an original cause or a motive or a scientific truth or a fundamental economic practice or a method of organizing human activity or a mathematical expression.

1. The Claimed Inventions Improve Call Router Controller Technology.

Claims directed to a more efficient or improved process of doing something have never been barred by § 101, notwithstanding reliance on judicially excepted subject matter. *See, e.g., Diamond v. Diehr*, 450 at 188. The Federal Circuit has followed the Supreme Court’s lead, finding claims directed to various “new and useful techniques” for performing tasks to be not abstract. *See, e.g., Thales Visionix Inc. v. United States*, No. 2015-5150, 2017 WL 914618, at *5 (Fed. Cir. Mar. 8, 2017) (“claims directed to a new and useful technique for using sensors to more efficiently track an object” to be not abstract); *Rapid Litigation Management Ltd., v. CellzDirect, Inc.*, 827 F.3d 1042, 1047 - 1050 (Fed. Cir. 2016).

The patent-eligibility of the claims is borne out in the claims, the specification of the Patents-in-Suit, and the Complaint—all of which must be accepted as true on Defendants’ Motion. *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009); *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 555 (2007). The patented inventions are more than ideas; they actually solve problems arising in the integration and interoperability of voice-over IP and public switched telephone communication networks. (*See* Malek Decl., Exhibit 1 (Complaint) at ¶¶ 7-16)). Defendants’ challenges ignore what a skilled artisan would recognize about the problems of integration: the two networks have significant differences such as the use of incompatible callee identifiers, addressing schemes and protocols. In particular, the claims relate to processes, systems and methods for the operation of a call routing controller and the routing of communications, such as telephone calls, within or between communication networks. The claims improve communications routing (as further explained *infra*), in part, through a routing controller operable to apply caller-specific attributes to evaluate and classify a destination, as between a private and public network, and to produce a routing message to setup a call controller to route a

1 communication to its destination by using network infrastructure identified by the aforesaid steps,
2 automatically and transparently to the caller.

3 Courts have found similar telephone and other communication routing claims to be eligible.
4 *See, e.g., Genband US LLC v. Metaswitch Networks Corp.*, No. 2:14-cv-33-JRG-RSP, 2016 U.S. Dist.
5 LEXIS 37946 (E.D. Tex., Jan. 6, 2016); *Twilio, Inc. v. Telesign Corporation*, Case No. 16-cv-06925-
6 LHK, 2017 WL 1208588, *32 (N.D. Cal. March 31, 2017); *Ronald A. Katz Tech. Licensing, L.P. v.*
7 *FedEx Corp.*, No. 2:15-cv-02329-JPM-tmp, 2016 U.S. Dist. LEXIS 38479 (W.D. Tenn. Mar. 24,
8 2016).

10 These facts make inapposite the cases that Defendants rely upon in which claims were found
11 to be directed to an abstract idea. The claims in those cases did not involve *improvements* to
12 technology such as the computer, controller or networking infrastructure, but rather *applications* of
13 computer networking technology to automate a human or business process. For example, in
14 *Accenture*, the claims involved the generation of tasks (i.e., a to-do list for humans) based on rules.
15 *See Accenture Global Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1338-39 (Fed. Cir.
16 2013); *Content Extraction & Transmission LLC v. Wells Fargo Bank, N.A.*, 776 F.3d 1343, 1345
17 (Fed. Cir. 2014). In *Ultramercial*, the claims involved offering free content in exchange for viewing
18 advertisements. *See* 772 F.3d at 712. These cases involved applications potentially running on a
19 technology infrastructure, but not technological improvements *to* that infrastructure or its process of
20 operation. By contrast, the claims of the Patents-in-Suit do relate to improvements to the technology
21 of a call routing controller, its programming and the process of its operation, as part of a networking
22 infrastructure. (*See* Malek Decl., Exhibit 1 (Complaint) at ¶¶ 7-16)). The Supreme Court has
23 acknowledged that claims that “purport to improve the functioning of a computer itself” or “effect an
24 improvement in any other technology or technical field” are patent eligible. *Alice*, 134 S. Ct. at 2359.
25 That is exactly the case here: as in *DDR* and *Bascom* (discussed herein), the claims at issue improve
26 communication routing technology and infrastructure in a manner that overcomes technical
27
28

1 limitations in prior art systems. (*See* Malek Decl., Exhibit 1 (Complaint) at ¶¶ 7-16)).⁵

2 Defendants admit that “whether a claim recites patent-eligible subject matter under Section
3 101, is a question of law based on underlying facts, such as whether a claim element is well-
4 understood, routine, and conventional.” (Motion at 8, citing *Berkheimer v. HP Inc.*, 881 F.3d 1360,
5 1368-69 (Fed. Cir. 2018) (emphasis added)). Yet Defendants summarily dismiss material facts
6 asserted in the pleadings, including: (1) explanations of specific improvements to call routing
7 controllers and communication networks enabled by the claims, which is material to an *Alice* Step 1
8 analysis, and (2) explanations of their *unconventional* manner of implementation, which is material to
9 the “inventive concept” analysis in *Alice* Step 2. (*See* Motion at p. 25; *compare* Malek Decl., Exhibit
10 1 (Complaint) at ¶¶ 7-16); *see also* *Aatrix Software, Inc. v. Green Shades Software, Inc.*, No. 2017-
11 1452, 2018 WL 843288 (Fed. Cir. Feb. 14, 2018) (assertions in the complaint about how the
12 invention solves problems in the prior art can raise factual disputes sufficient to preclude a Rule
13 12(b)(6) motion under §101). For example, the Complaint explains how the claimed invention gives
14 rise to benefits including *user-specific calling* and *transparent routing*—which Defendants have
15 simply ignored:

18 (1) User-Specific Calling. The call routing controller, system and method of the claimed
19 invention is improved over prior art technology in a manner that allows user-specific placement of
20 calls. (*See* Malek Decl., Exhibit 1 (Complaint) at ¶ 12)). As discussed in Section II(A)(2), Claim 1 of
21 the ‘815 Patent describes using caller-specific “attributes” (“calling attributes associated with the
22 caller”) to evaluate a “callee identifier” in order to identify an intended destination (“callee”). (*See*
23 Malek Decl., Exhibit 2 (‘815 Patent) at col. 36 ll. 15 - 23)). Different callers with differently
24 configured attributes could dial the *same* string of digits to reach *different* destinations because the
25

27 ⁵ *See also* Malek Decl., Exhibit 2 (‘815 Patent) at col ll. 12-13 (“invention relates to voice over IP
28 communications and methods and apparatus for routing”); *id.* at col. 1 ll. 50-64 (describing a process
for operating a routing controller for routing to private network and public network destinations).

1 meaning of the callee identifier is different based on each caller's attributes.⁶ Thus, in Claim 1 of the
 2 '815 patent, user-specific calling attributes are used in the process of classifying the call as either a
 3 public network call or a private network call. (See Malek Decl., Exhibit 2 ('815 Patent) at Fig. 8A-D,
 4 especially 8B; see also Malek Decl., Exhibit 1 (Complaint) at ¶12)).⁷ User-specific call placement
 5 provides benefits such as the ability to support local PSTN styles (or even unconventional styles) of
 6 calling no matter where in the world a caller is located. (See Malek Decl., Exhibit 2 ('815 Patent) at
 7 col. 15 ll. 10-15 and col. 17 l. 59 – col. 18 l. 10); see also Malek Decl., Exhibit 1 (Complaint) at
 8 ¶12)). In PSTN systems, callers were hard-wired to telephony switches via central offices providing
 9 services to a local calling area and call routing was based on the *destination number alone*. (Id. at ¶¶8,
 10 11 12). User-specific call placing is embodied in all of the asserted claims.

12 **(2) Transparent Routing.** The improved call routing controller, system and method of the
 13 claimed invention also enables using a caller's attributes to evaluate a callee identifier against
 14 network routing criteria to cause a call to *automatically* be routed over a system network ("private
 15 network") or another network interconnected to the system network via a gateway (e.g., a "public
 16 network") *transparently to the user*—without the user manually specifying the network to use for
 17 routing by the user's manner of placing the call (e.g., by dialing a prefix of "9" to make a PSTN call)
 18 and even without the user knowing whether the destination is on the private or public network. (See
 19 Malek Decl., Exhibit 1 (Complaint) at ¶¶ 9-10, 13-14)). Thus, a PSTN-compatible callee identifier
 20
 21

22 ⁶ See Malek Decl., Exhibit 2 ('815 Patent) at Fig. 10 (user profile has attributes to allow PSTN dialing
 23 using certain conventions, e.g., using "011" for international dialing digits); Fig. 12 (another user's
 24 profile is different, e.g., IDD is "00")). Service preferences can be different for each individual user.
 (See Malek Decl., Exhibit 2 ('815 Patent) at col. 18 ll. 1-67 and Fig. 8B (illustrating the processing of
 a callee identifier based on a caller attributes)).

25 ⁷ Similarly, e.g., Claim 74 of the '005 Patent recites locating "*using the first participant identifier to*
 26 *locate a first participant profile comprising a plurality of attributes associated with the first*
 27 *participant.*" For the same reasons stated above, these are user-specific attributes that are individually
 28 configured for each respective subscriber. Claim 74 of the '005 Patent also recites producing a
 routing message "*when at least one of the first participant attributes and at least a portion of the*
second participant identifier meet a [first/second] network classification criterion." As stated *supra*,
 this requires that user-specific attributes are used in the process of routing a call. (See Malek Decl.,
 Exhibit 3 ('005 Patent) at col. 43 ll. 40 – 65)).

1 can be used to identify a public network destination (*e.g.*, a PSTN phone) or a private network
 2 destination (*e.g.*, VoIP phone), but which destination type the callee identifier represents is decided
 3 *automatically* and *transparently* to the user.

4 Such routing transparency improves the user interface and functionality over prior systems:
 5 the caller *need not* or *does not know* whether a PSTN-style number will be routed to a destination on
 6 the private network (*e.g.*, VoIP) or the public network (PSTN), whereas in some prior systems, users
 7 were required to explicitly dial a prefix to manually classify a call as a public network call or refrain
 8 from dialing a prefix digit to manually classify a call as a private network call. (*See* Malek Decl.,
 9 Exhibit 1 (Complaint) at ¶¶ 9-10, 13-14)). Where, as here, claims are directed to an improvement in
 10 the functioning of technology, the claims are not abstract. *See, e.g., Core Wireless Licensing S.A.R.L.*
 11 *v. LG Elecs., Inc.*, 880 F.3d 1356, 1362-3 (Fed. Cir. 2018) (finding claims eligible under § 101
 12 because the claims were directed to an improvement in the functioning of computers; *Evolved*
 13 *Wireless, LLC v. Apple Inc.*, 221 F. Supp. 3d 485, 494 (D. Del. 2016) (finding claims eligible under §
 14 101 where they were “directed to technological improvements resolving specific problems in a
 15 wireless communications system”).

16 Transparent routing is embodied in all the asserted claims (*See* Malek Decl., Exhibit 2 (‘815
 17 Patent) at col. 36 ll. 15 (showing Claim 1 of ‘815 Patent (“*determining a match when at least one of*
 18 *said calling attributes matches at least a portion of said callee identifier;*” and “*classifying the call as*
 19 *a [private or public] network call when said match meets [private or public] network classification*
 20 *criteria*”)). Because classification depends on more than just the callee identifier, and depends on
 21 information other than that provided by the caller, the claimed classification does not cover the
 22 manual user-initiated classification of prior systems. (*See* Malek Decl., Exhibit 1 (Complaint) at ¶¶9-
 23 10, 13-14)). The Motion acknowledges, only briefly, the specific advantages over the prior art
 24 including user-specific calling, transparent routing and network resiliency (*See* Motion at p. 25). But
 25 the Motion refuses to engage any of the pleaded facts, instead issuing blanket dismissals based on
 26
 27
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1 conclusory reasoning. First, the Motion alleges the specification of the Asserted Patents is “wholly
 2 devoid of details which describe *how* this is accomplished”.⁸ On the contrary, the Patents provide
 3 detailed descriptions of the methods, data structures and network elements used to enable benefits.
 4 *Compare* (See Malek Decl., Exhibit 2 (‘815 Patent) at Figs. 1, 8A-D)). Recognizing the facial
 5 implausibility of their allegation, Defendants hedge their bets: “But even if disclosed in the
 6 specification, none of the asserted claims recite the purported benefits.” But this bare allegation, too,
 7 is unjustified, as shown above.
 8

9 And Defendants’ argument that the use of a “call controller,” “gateway” and other architecture
 10 necessarily undermines the eligibility of the patented claims is significantly flawed. (See Motion at
 11 pp. 19 – 20 (citing *In re TLI Commc’ns LLC Patent Litig.*, 823 F.3d 607, 611 (Fed. Cir. 2016)). *TLI*
 12 *Communications* is distinguishable. In *TLI Communications*, the Federal Circuit invalidated claims
 13 directed to nothing more than “the abstract idea of classifying and storing digital images in an
 14 organized manner.” *Id.* at 611. The Federal Circuit noted that the specification recited physical
 15 components that “merely provide[d] a generic environment in which to carry out the abstract idea.”
 16 *Id.* In contrast, the asserted claims are not directed to an abstract idea but are processes and systems
 17 that go beyond mere processing of information; the claims actually use caller attributes, along with
 18 callee information, in order to set up a call controller to route a communication between public and
 19 private networks. See *supra*; *Data Engine Techs. LLC v. Google LLC*, 906 F.3d 999, 1002 (Fed. Cir.
 20 2018) (finding the asserted claims to be eligible where they were directed to a specific improved
 21 method for navigating through complex three-dimensional electronic spreadsheets). In summary, the
 22 asserted claims, considered in light of the specification and the state of the prior art, are directed to
 23 specific improvements in a call routing controller, method and system which addresses destinations
 24
 25

26
 27 ⁸ The Motion inappositely cites to *Interval Licensing LLC v. AOL, Inc.* 896 F.3d 1335, 1346 (Fed.
 28 Cir. 2018) (patent touting the presentation of an additional set of information, but failing to provide
 even basic details such as how a preexisting screen background is altered to enable display of a
 second set of information, nor how that information is segregated from the primary set).

on two separate communication networks. As in *Enfish v. Microsoft Corp.* 822 F.3d 1327 (Fed. Cir. 2016), the improvements constitute eligible inventions under §101.

2. The Claims Are Not Directed to Acquiring, Analyzing and Presenting Information.

Defendants’ contention that the claims are abstract because they “gather[] information” is wrong. Defendants improperly consider only two limitations of the claims in isolation without giving any effect to other claim limitations or the claim as a whole. *Diamond v. Diehr*, 450 U.S. 175, 188 (1981). Claim 1 does far more than acquire, analyze or present information; it “*produc[es] a private [or: public] network routing message... for receipt by [a] call controller*”. (See Malek Decl., Exhibit 2 (‘815 Patent) at col. 36 ll. 14 – 47)). The “*call controller*” is a system element that “*cause[s] a communication link... to be established to the call recipient or callee*” in response to a “*routing message*.” (See Malek Decl., Exhibit 2 (‘815 Patent) at col. 14 ll. 10-23; col. 15 ll. 1-4; col. 16 ll. 33-36; col. 26 ll. 40-49)). The routing message identifies network infrastructure determined to be appropriate for a given call. *Id.* (routing message identifying “*an address, on the private network, associated with the callee*” for a “*private network call*” and identifying “*a gateway to the public network*” for a “*public network call*”).⁹ The “*routing message*” sets up a “*call controller*” such that the result of Claim 1 is *not* mere information *but rather* a call controller that is setup to establish the initiated call via suitable infrastructure.¹⁰ Defendants argue that the claims are unpatentable because they do “no more than describe function or outcome” without “describ[ing] how to achieve these results in a non-abstract way.” (See Motion at p. 14 (citing *Two-Way Media Ltd. v. Comcast Cable Commc’ns, LLC*, 874 F.3d 1329, 1337 – 38 (Fed. Cir. 2017))). Defendants’ reliance on *Two-Way Media* is misplaced. In *Two-Way Media*, the court took issue with the fact that the claims at issue did

⁹ See also Malek Decl., Exhibit 2 (‘815 Patent) at Figures 15 (general routing message format), 16 (example of private network routing message identifying a different node), 32 (example of private network routing message identifying same node), and 25 (public network routing message identifying a gateway).

¹⁰ Defendants concede that “[t]he routing controller generates a ‘routing message’ that contains information about the classification and routing of the call, and sends the routing message to a ‘call controller’... [that receives it] as a request to establish a call”. (See Motion at p. 4).

1 not “describe how to achieve these results in a non-abstract way.”). As described herein, the asserted
 2 claims define, with particularity, the process through which the call controller is set up to route the
 3 communications.

4 In fact, Claim 1’s process does far more than use information. Claim 1 requires “*initiation of a*
 5 *call.*” (See Malek Decl., Exhibit 2 (‘815 Patent) at col. 36, ll. 18 – 19)). Claim 1’s operation of a call
 6 routing controller is in response to that call initiation. *Id.* (process is “*in response to initiation of a*
 7 *call by a calling subscriber*”). Defendants also ignore the internal structure of Claim 1’s process,
 8 including its ordered dependency of steps. For example, Claim 1 requires “*producing*” a “*routing*
 9 *message*” that depends on a preceding “*classifying*” step. But the “*classifying*” step is ***not*** merely
 10 “based on ‘classification criteria’” ***in the abstract***, as suggested by Defendants’ truncated description.
 11 (See Motion at p. 13). Rather, “*classifying*” is based on a “*match*” meeting “[*public or private*]
 12 *network classification criteria*”. (See Malek Decl., Exhibit 2 (‘815 Patent) at col. 36 l. 14 – 35
 13 (showing Claim 1)). And the preceding step indicates a “*match*” occurs between at least one of the
 14 “*calling attributes*” and at least a portion of the “*callee identifier*”. (*Id.*). The “*calling attributes*,” in
 15 turn, are “*locat[ed]*” from a “*caller dialing profile*” and thus are user-specific (*i.e.*, “*associated with*
 16 *the caller*”). Therefore, the “*routing message*” that sets up the “*call controller*” is based on a
 17 classification of a call destination, which, in turn, was identified by a caller-*specific* evaluation of the
 18 “*callee identifier*” (*i.e.*, based on “*attributes*” associated with the initiating caller in their “*dialing*
 19 *profile*.”) (*Id.*; see also Malek Decl., Exhibit 2 (‘815 Patent) at Figs. 8A-8D)).

20 Defendants cite various cases for the proposition that the asserted claims are abstract because
 21 they are directed to the steps of gathering, analyzing, and manipulating information. Foremost, as
 22 described herein, the claims do much more than just gather and process information. (See, *infra.*
 23 *generally*). And claims organizing or analyzing information are eligible when directed to something
 24 more. See, e.g., *McRO, Inc. v. Bandai Namco Games America Inc.*, 837 F.3d 1299, 1313 – 1314 (Fed.
 25 Cir. 2016) (finding that claims related to automating part of a 3-D animation method, and limited to

the use of specific rules rather than all rules, are not directed to an abstract idea); *see also Core Wireless Licensing S.A.R.L. v. LG Elecs., Inc.*, 880 F.3d 1356, 1362-3 (Fed. Cir. 2018) (finding claims eligible under § 101 notwithstanding that the claims included the generic “idea of summarizing information”). Separately, the cases that Defendants cite are entirely distinguishable because the claims (in those cases) were limited to the collection, processing and display of information without anything more and without anything inventive. *See Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016) (finding claims to information gathering to be abstract because the claims did not use “any particular assertedly inventive technology for performing those functions”); *see also West View Research, LLC v. Audi AG*, 685 F App’x 923, 926 (Fed. Cir. 2017) (unpublished) (holding that claims to collecting, analyzing, retrieving and processing information were ineligible where they did not go beyond “the abstract idea of collecting and analyzing information”).¹¹ The cases that Defendants cite relate solely to the steps of processing and displaying information. In contrast, Claim 1 of the ‘815 Patent is *directed to*:

providing an improved call routing controller, in communication with a call controller, that

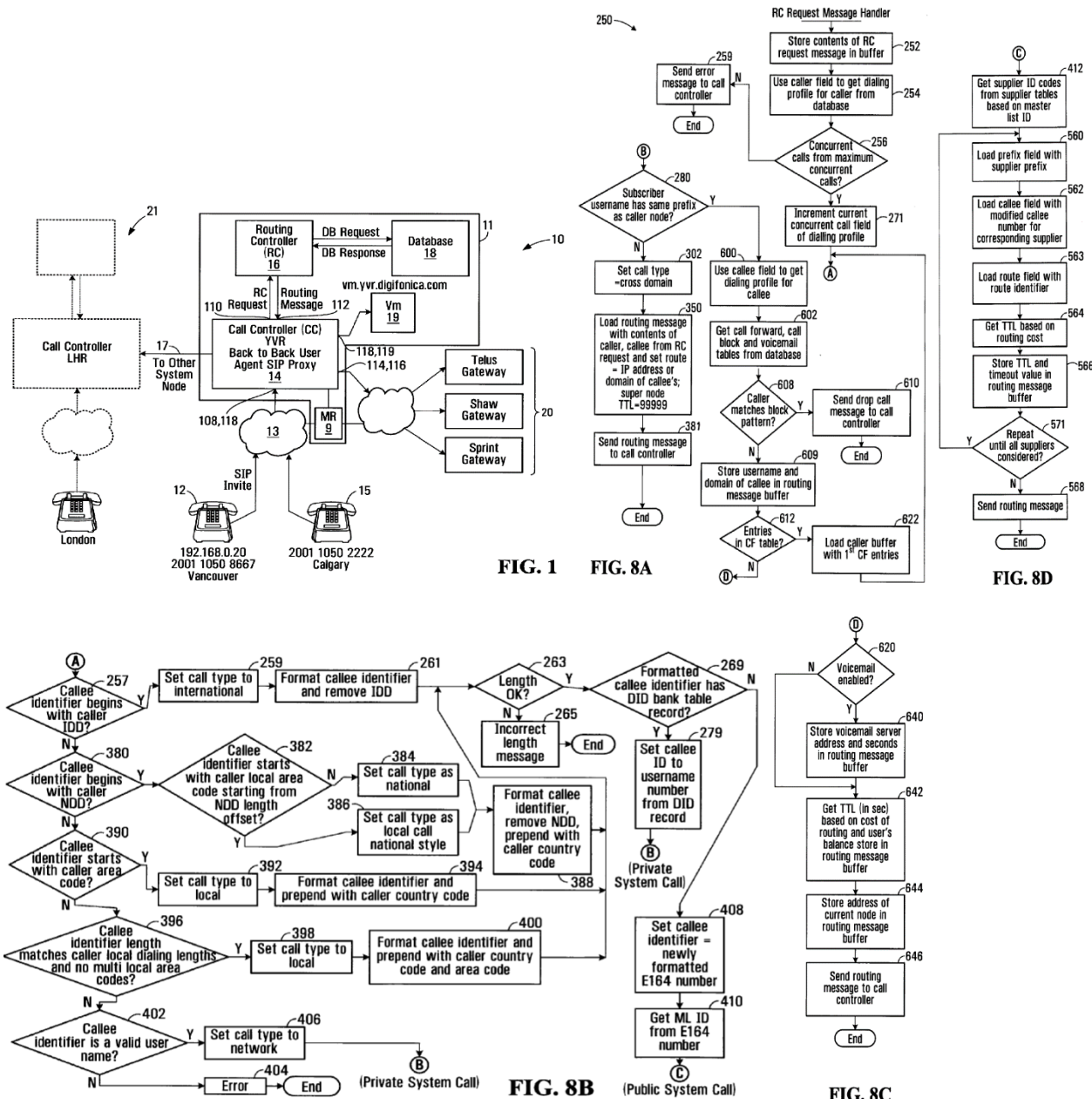
¹¹ Defendants’ list of cases on this subject is extensive, but they are all similarly defective in their application here because the cases all reach a conclusion of ineligibility for claims directed to nothing inventive and nothing more than processing, analyzing, or gathering information, thereby constituting pure human activity. (*See, e.g.*, Motion a pp. 15 – 16 (citing *FairWarning IP, LLC v. Iatric Systems, Inc.*, 839 F.3d 1089, 1093 (Fed. Cir. 2016) (agreeing that the invention was “drawn to the concept of *analyzing records* [and data] of human activity to detect suspicious behavior” without anything more (emphasis added)); *SAP Am, Inc.*, 898 F.3d at 1167 – 68 (finding that the focus of the claims was “on *selecting certain information, analyzing it* using mathematical techniques, and *reporting or displaying the results of the analysis*” without anything more (emphasis added)); *In re TLI Commc’ns LLC Patent Litig.*, 823 F.3d 607, 611 (Fed. Cir. 2016) (claims directed to nothing more than “the abstract idea of *classifying and storing digital images* in an organized manner” (emphasis added)); *24/7 Customer, Inc. v. LivePerson, Inc.*, Case No. 15-cv-02897-JST, 2017 WL 2311272, at *3 (N.D. Cal. May 25, 2017) (claims directed solely to “*tailoring information*” (emphasis added)); *Immersion Corp. v. Fitbit, Inc.*, 313 F.Supp. 3d 1005, 1027 – 29 (N.D. Cal. 2018) (claims describing “nothing more than generic data analysis”); *Pragmatus Telecom, LLC v. Genesys Telecomms. Labs., Inc.*, 114 F. Supp. 3d 192, 200 (D. Del. 2015) (claims directed solely to “communication between a customer and a business using a call center”); *Telinit Techs., LLC v. Alteva, Inc.*, No. 2:14-CV-369, 2015 WL 5578604, *16 (E.D. Tex. Sept. 21, 2015) (claims do nothing more than use a generic data collection limitation to confine/retrieve data - “tasks that human beings” could perform); *Parus Holdings, Inc. v. Sallie Mae Bank*, 137 F. Supp. 3d 660, 672 (D. Del. 2015) (solely to “receiving, sending and managing information from a subscriber to a network”) (subsequent history omitted); *Broadsoft, Inc. v. Callwave Commc’ns, LLC*, 282 F. Supp. 3d 771, 784-85 (D. Del. 2017) (claims directed to storing data, looking up data and processing data (inserting at least a portion of that data in the already existing caller ID field) (subsequent history omitted)).

enables a private communication network (*e.g.*, a VoIP system) to better interoperate with a traditional public communications network (*e.g.*, the public switched telephone network or “PSTN”), to reach an intended destination in either the private or public network, which involves: evaluating the callee identifier that is provided by the caller in conjunction with (“*determining a match*” with) caller-specific “*attributes*” that are located (from a “*caller dialing profile*” and “*associated with the caller*”) to identify (“*classify[]*”) the intended destination as belonging to the private network or the public network (by testing against “*public network criteria*” and “*private network criteria*”), and then, based on the classification, producing a routing message (“*for receipt by the call controller*”) to setup the call controller to establish the call to the intended destination (“*callee*”) via the appropriate communication infrastructure (by “*identifying an address, on the private network, associated with the callee*” or “*identifying a gateway to the public network,*” depending on the classification made) [N.B.: claim language emphasized in *italics*]

Defendants’ assertion that the claims are directed to an abstract idea is even less plausible for means-plus-function claims such as the apparatus in Claim 28 of the ‘815 Patent. While Claim 28 is similar to Claim 1, the “means” recited in Claim 28 are interpreted under pre-AIA 35 U.S.C § 112(6) as directed to corresponding structures disclosed in the patent specification and equivalents thereof.¹² The *non*-abstract character of Claim 28 is illustrated in the specification, for example, in Figure 1 and the algorithms disclosed in Figs. 8A-8D, shown below (*See* Malek Decl., Exhibit 2 (‘815 Patent) at col. 38 ll. 53 – 67)).¹³

¹² Pre-AIA 35 U.S.C. 112(6): “An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.” *Greenberg v. Ethicon Endo-Surgery, Inc.* 91 F.3d 1580, 1584 (Fed. Cir. 1996) (“the use of the term ‘means’ has come to be so closely associated with ‘means-plus-function’ claiming that it is fair to say that the use of the term ‘means’ (particular as used in the phrase ‘means for’ generally invokes section 112(6))”)

¹³ Referring to Malek Decl., Exhibit 2 (‘815 Patent), and the claim elements of Claim 28, the specification discloses at least one processor configured to perform the steps of: “*receiving means for receiving a caller identifier and a callee identifier*” including input port 208, a “*means for locating a caller dialing profile*” including Fig. 8A, block 254, a “*means for determining a match [with] calling attributes...*” including Fig. 8B, steps 257, 380, 382, 390, and 396, a “*means for classifying*” including one or more branches of Fig. 8B that leads to blocks 408, 406 or 279, “*means for producing a private network routing message*” and “*means for producing a public network routing message*” including Fig. 8A, block 350, Fig. 8C, block 644 or Fig. 8D, block 563. Thus, Claim 28 is directed to a *special purpose* routing controller that improves intra- and inter-public/private network communications and does so in a specific manner that does not preempt the field.



Defendants merely dismiss the underlying structure of the means plus function claims as “generic computer components” as if that was dispositive *but fail to consider underlying algorithms*. (Motion at p. 18). It is an error of law to interpret a means-plus-function apparatus as a generic computer in cases where, *as here*, the specification discloses a detailed underlying algorithm: this transforms a general purpose computer into a “*special purpose computer programmed to perform the disclosed algorithm*.” *Aristocrat Technologies Australia Pty Ltd. v. Int’l Game Tech.*, 521 F.3d 1328, 1333 (Fed. Cir. 2008) (citing *In re Alappat*, 33 F.3d 1526, 1545 (Fed. Cir. 1994) and *WMS Gaming*

1 *Inc. v. International Game Technology*, 184 F.3d 1339, 1348 (Fed. Cir. 1999). Defendants cite a
 2 decision finding means-plus-function claims to be abstract, but in that case, the specification
 3 contained an abstract description of the *underlying algorithms*. *Procter & Gamble Co. v.*
 4 *QuantifiCare Inc.*, 288 F. Supp. 3d 1002, 1027 (N.D. Cal. 2017).

5 **3. Defendants “Brick and Mortar” and “Pen and Paper” Arguments Fail.**

6 Next, Defendants assert the claims have a “clear” “brick and mortar” and related “pen and
 7 paper” analogy, *i.e.*, “human operators using switchboards” in “telephone companies” inserting “a
 8 pair of phone plugs into the appropriate jacks”. (Motion at pp. 17-19). Defendants allege that
 9 switchboard operators “determined where a call should be routed using relevant caller and callee
 10 attributes (*e.g.*, phone numbers, area codes, or international dialing codes).” (*Id.*). Defendants fail to
 11 explain what might be “relevant” for any given call, and improperly invite the Court to take judicial
 12 notice of “well-known historical facts” in this context. (*Id.* at p. 17). By alleging that operators used
 13 “relevant caller and callee attributes,” Defendants misrepresent switchboard operations. (Motion at p.
 14 17). The PSTN was designed for phone numbers to be self-interpreting. Defendants do not explain
 15 how or why human switchboard operators would have needed information about the caller to route a
 16 call. Traditional switchboard routing used only the callee identifier (*i.e.*, telephone number) to
 17 identify, and route to, the destination (*i.e.*, callee) and did not need information about the caller—
 18 which stands in contrast to the methodology disclosed in the asserted Patents. (*See* Malek Decl.,
 19 Exhibit 1 (Complaint) at ¶¶9-14)). *At best*, telephone operators might have used a caller’s identity to
 20 properly attribute toll charges, or to record the caller’s number for a call back in case the connection
 21 was lost. Moreover, for some calls (*e.g.*, incoming on trunks from another switchboard operator), *no*
 22 caller identification was given but the call could still be routed based solely on the callee number.
 23

24 Defendants assert that “a switchboard operator would receive a caller identifier (*i.e.*, the
 25 caller’s phone number) and locate additional data (*i.e.*, the caller’s local area for phone service) based
 26 on the area code of that identifier” and that “a switchboard operator would determine whether the
 27
 28

1 callee and the caller share the same local area code.” (Motion at 19). Again, these bare assertions are
 2 made without any evidence. *See Pure Data Sys., LLC v. Ubisoft, Inc.*, 329 F. Supp. 3d 1054, 1068
 3 (N.D. Cal. 2018) (rejecting the asserted comparisons to longstanding commercial practices and
 4 methods of organizing human activity because “the Court has no knowledge of any actual use of such
 5 practice, much less any confidence that the common use of such a practice is generally known...”).
 6 As noted above, switchboard operators did not need information about the caller to route the call; the
 7 callee identifier was sufficient. Nor was an operator required to *disambiguate* the meaning of a called
 8 number that potentially might identify a destination on any one of *multiple* networks, based on the
 9 caller. In contrast, the asserted claims *do* specifically require caller information to be used in the
 10 process of evaluating a callee identifier to determine, classify, and route to the destination on the
 11 appropriate communication network.¹⁴ *See Intellectual Ventures II LLC, v. BITCO General*
 12 *Insurance Corp.*, Case No. 6:18-cv-00298, 00299, 2019 WL 313207, *4 (E.D. Tex. Jan. 24, 2019)
 13 (rejecting the asserted brick and mortar analogy where it “ignored the language” of the asserted
 14 claim).
 15
 16

17 Moreover, in the asserted claims, when a call is placed, the caller identifier that arrives at the
 18 routing controller—even if taken together with the callee identifier—*does not contain the information*
 19 *necessary to route the call*. To route a call, the asserted claims do not apply knowledge of the *caller*
 20 *identifier*, but rather, knowledge of caller *attributes* associated with the caller identifier. And these
 21 caller attributes are *not* provided from the caller—they are located from a *caller-specific profile*
 22 (whereas the callee identifier *is* provided from the caller). Defendants’ analogy obfuscates these key
 23 differences. Defendants conflate all sources of information and all methods of analysis into the
 24

25
 26 ¹⁴ For example, ‘815 Patent Claim 1 recites “*locating a caller dialing profile... [with] a plurality of*
 27 *said calling attributes associated with the caller,*” and producing a routing message “*when at least one of*
 28 *said calling attributes and at least a portion of a callee identifier associated with the callee meet*
[private/public] network classification criteria.” In some scenarios, the *same* callee identifier could
 potentially identify a destination on *either* the private or public network. (See Malek Decl., Exhibit 2
 (‘815 Patent) at col. 36 ll. 12 – 39)).

1 inaccurate concept of “determin[ing]... where to route a call as between two networks based on
 2 information about the caller and callee” (*See* Motion at 17). Thus, the operator analogy *also* fails not
 3 to mention it is not the proper subject of judicial notice.¹⁵

4 **B. Step 2. The Asserted Claims Recite Inventive Concepts and Are Patent Eligible**

5 As explained above, the claims are not directed to an abstract idea, and Defendants’ Motion
 6 must be denied on that basis alone. Under the second step of the patent-eligibility analysis, the claims
 7 recite inventive concepts, providing yet another ground for denial of Defendants’ Motion. *See, e.g.,*
 8 *DDR Holdings LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014); *Bascom Global*
 9 *Internet Servs., Inc. v. AT&T Mobility, LLC*, 827 F.3d 1341, 1349 (Fed. Cir. 2016). In determining
 10 whether there is an “inventive concept” in a claim, courts must “consider the elements of each claim
 11 both individually and ‘as an ordered combination’ to determine whether the additional elements
 12 ‘transform the nature of the claim’ into a patent-eligible application.” *Alice*, 134 S. Ct. at 2355; *see*
 13 *also Berkheimer v. HP, Inc.*, 881 F.3d 1360 (Fed. Cir. 2018); *Amdocs (Israel) Ltd. v. Openet*
 14 *Telecom, Inc.*, 841 F.3d 1288 (Fed. Cir. 2016).

17 **1. Using Caller Attributes to Utilize Callee Identifiers to Transparently Route Calls Between Private/Public Networks Is Unconventional.**

18 The claims do not merely recite “well-understood, routine and conventional functions.”
 19 Rather, the claims recite a specially programmed routing controller to provide call placement and
 20 routing in an individually customizable manner for each caller. At the time of the invention(s)
 21

22 ¹⁵ This material is not the proper subject of judicial notice. Under Federal Rule of Evidence 201(b),
 23 “[t]he court may judicially notice a fact that is not subject to reasonable dispute because it: (1) is
 24 generally known within the trial court’s territorial jurisdiction; or (2) can be accurately and readily
 25 determined from sources whose accuracy cannot reasonably be questioned.” A court “may not take
 26 judicial notice of a fact that is ‘subject to reasonable dispute,’” nor “the truth of the facts recited
 27 within a judicially noticed document.” *Lee v. City of Los Angeles*, 250 F.3d 668, 688-90 (9th Cir.
 28 2001); *Shaterian v. Wells Fargo Bank*, Case No. C-11-920 SC, 2011 U.S. Dist. LEXIS 62165, *4
 (N.D. Cal. June 10, 2011) (“However, the Court may not take judicial notice of the truth of the facts
 recited within a judicially noticed document.”); *Lawther v. OneWest Bank, FSB*, No. C-10-00054
 JCS, 2012 U.S. Dist. LEXIS 12062, *3 (N.D. Cal. Feb. 1, 2012).

1 claimed in the Patents-in-Suit, this was entirely unconventional. In *DDR Holdings*, the patent claims
 2 relating to “creation of a composite web page” were found to include an inventive concept because
 3 they “recite[d] an invention that is *not merely the routine or conventional use of the Internet.*” 773
 4 F.3d at 1259 (emphasis added); *see also Bascom*, 827 F.3d at 1350 (holding that a “non-conventional
 5 and non-generic arrangement of known, conventional pieces” can yield an inventive concept); *see*
 6 *also Finjan, Inc. v. Blue Coat Sys., Inc.*, 879 F.3d 1299, 1305-6 (Fed. Cir. 2018) (claims not abstract
 7 because “the claims recite more than a mere result” and instead “recite specific steps [] that
 8 accomplish the desired result”). There, the Federal Circuit recognized that the claims “[did] not
 9 attempt to preempt every application of the idea of increasing sales by making two web pages look
 10 the same” but instead “*recite[d] a specific way to automate the creation of a composite web page ...*
 11 *that incorporates elements from multiple sources in order to solve a problem faced by websites on the*
 12 *Internet.*” *Id.* at 1259 (emphasis added). This was a sufficient “inventive concept” to render the claims
 13 patent-eligible. *Id.* The same reasoning applies here.

16 Defendants argue that the asserted claims lack an inventive concept because certain elements
 17 of the claims were allegedly used in pre-Internet telephony routing by human operators. (Motion at p.
 18 22) (“long ago, humans produced such messages, for example, when verbally relaying information to
 19 the caller or callee or to other operators, or when recording information, such as the various routes to
 20 the desired switchboard for routing the call”). This reasoning is unsound. First, it proves *too much*.
 21 On this basis, Defendants can dismiss nearly *any* telephony or routing technology out of hand—
 22 regardless of how inventive or specifically claimed—as not containing a patent-eligible inventive
 23 concept. Second, this reasoning erroneously *conflates* what was known in the prior art, which goes to
 24 anticipation and obviousness, with what is generic, which goes to patent eligibility. *Diamond v.*
 25 *Diehr*, 450 U.S. 175, 191 (1981). The existence of some methods of routing telephone calls in the
 26 prior art says nothing about whether other (or *improved*) methods in a patent claim are “well-
 27 understood, routine or conventional.”
 28

Defendants provide no basis for disregarding the specific operation of the call routing controller as providing an inventive concept for the claims. For example, as discussed in Section II(A)(2), Claim 1 of the ‘815 Patent has an internal structure that is specific and cannot be characterized as directed merely to a desired result that leaves unspecified *how* the result is achieved. Rather, its structure corresponds to computer-implemented steps, an embodiment of which is illustrated in Figs. 8A-8D. (*See* Malek Decl., Exhibit 2 (‘815 Patent)). Such particularity ensures that the claims are not directed at patenting the concept of acquiring, analyzing and presenting information itself, but rather cover a specific (and better) way of solving an identified problem using a routing controller that applies individually customizable routing schemes and elements. *See Visual Memory LLC v. NVIDIA Corp.*, 867 F.3d 1253, 1262 (Fed. Cir. 2017) (finding claims eligible and holding that the use of conventional computer components, by itself, is not “fatal to patent eligibility where the claims ‘are directed to an improvement in the functioning of a computer.’”(citation omitted)); *see also Alice*, 134 S. Ct. at 2355.

Defendants reliance on the historical fact that telephone operators routed calls in some fashion has no foundation, given that Defendants’ Motion is one under Rule 12(b)(6) and there is no record to support such conclusions. *See* Section II(A)(3). Moreover, the historic operator analogy is unavailing because the patented inventions are unconventionally distinct from the methods used by the operators, who routed calls simply on the basis of the callee identifier alone. *Id.* Those operators would not even infringe the asserted claims. In PSTN numbering plans, telephone numbers were self-interpreting (*e.g.*, a country code, area code or exchange code self-evidently facilitated the next step in routing). At no point would an operator need to *disambiguate* the telephone number being called or select a different network destination, based on *who* was calling. Consequently, even if the claims are directed to an abstract idea (which is denied), it is clear that they incorporate a feature or ordered combination of features that are distinct from what was “well-understood, routine or conventional” in

the art.¹⁶ Producing a routing message for receipt by a call controller to cause an electronic communication to be routed (without user-initiated classification of the communication) as between two different networks, based upon caller-specific profile information (i.e., caller “*attributes*”) and information about the callee is inventive because it provides *customization* of dialing to follow any local PSTN convention (or other dialing styles), unlike conventional systems. User-specific customization techniques have been recognized by the Courts as eligible subject matter under 35 U.S.C. §101. *Bascom Global Internet Servs., Inc. v. AT&T Mobility, LLC*, 827 F.3d 1341, 1350 (Fed. Cir. 2016) (finding claims for internet content filtering performed at “a specific location, remote from the end-users, with customizable filtering features specific to each end user” to be unconventional and eligible).

Defendants present *no* clear and convincing evidence that an operator in middle of the twentieth century evaluated the callee identifier with a routing controller to route a call ***based on attributes associated with the caller***, using private and public network classification criteria, as described. Rather, as explained, it was conventional for routing destinations to be determined based on a ***callee identifier alone*** as a limitation to the technology. Defendants’ reliance on *Electric Power Group* is inapposite: “The claims in this case do not even require a *new source or type of information, or new techniques for analyzing it...*” (Motion at 22-23 (quoting *Electric Power Group* 830 F.3d at 1354-55) (emphasis added)). *Electric Power Group* supports a finding of eligibility, i.e., the asserted

¹⁶ At the conclusion of this Brief, VoIP-Pal illustrates the reasons for denial of Defendants’ Motion based on prematurity due to the fact that VoIP-Pal requires discovery in order introduce evidence into the record in support of its arguments against Defendants’ Motion – something that VoIP-Pal has limited capability to do on a Rule 12 motion to dismiss. In VoIP-Pal’s proffer of evidence at the conclusion of this Brief, VoIP-Pal references evidence that Defendants’ arguments about what is conventional should be regarded with skepticism absent a fullsome factual record based on submissions by Defendant Apple in various IPR proceedings. That is because in related IPR proceedings filed by Defendant Apple and from which VoIP-Pal prevailed, IPR2016-01198 and IPR2016-01201 (analyzing step 608 in U.S. Patent No. 7,486,684 to Chu), Apple argued that a PBX would have “***analyze[d] attributes of the caller... to determine [where] the call should be routed.***” ((IPR2016-01198, Paper 2 - *Petition for Inter Partes Review*) at 10 (citing step 608 in Chu ’684 at 8:65-9:1); *see also* (Declaration of Apple’s expert, Ex. 1009) in ¶¶ 36 and 41)). The PTAB rejected Apple’s argument in IPR2016-01198. ((Paper 53 – Final Written Decision) at 22), relying on Exhibit 2016 (Malek Declaration, Exhibit 4 (Decl. of Bill Mangione-Smith) expert witness for VoIP-Pal)).

1 claims require an *unconventional source* (a caller profile) and apply *unconventional analysis*
 2 *techniques* (using attributes from the caller profile to analyze a callee identifier. (*See* Malek Decl.,
 3 Exhibit 2 ('815 Patent) at Figs. 8A-D)).

4 In trying to prove that there is no inventive concept embodied in the asserted claims,
 5 Defendants revisit their all too familiar, and deficient, go-to argument that the claims merely require
 6 locating and classifying information and producing a routing instruction as a result. (*See* Motion at p.
 7 21). However, as discussed already, the cases Defendants cite illustrate the deficiency in their logic.
 8 In *CyberSource Corp. v. Retail Decisions, Inc.*, the Federal Circuit found ineligibility where the claim
 9 “[could] *all be performed* in the human mind.” 654 F.3d 1366, 1373 (Fed. Cir. 2018) (“Such a
 10 method that can be performed by human thought alone is merely an abstract idea and is not patent-
 11 eligible under § 101.” (emphasis added)). That really is a step 1 argument revisited and has already
 12 been refuted. Likewise, Defendants rely upon *Ultramercial, Inc. v. Hulu, LLC*; but there, the claims
 13 were directed to using advertising as a form of exchange or currency, an abstract concept that could
 14 not be rescued by recitation of generic computer components. 772 F.3d 709, 715 (Fed. Cir. 2014).
 15 But the recital of generic components in a claim is not dispositive. *Avocent Huntsville, LLC v. ZPE*
 16 *Sys., Inc.*, No. 3:17-CV-04319-WHO, 2018 WL 1411100, at *1, 8-9 (N.D. Cal. Mar. 21, 2018)
 17 (claims reciting generic components found to contain sufficient inventiveness for eligibility).
 18 Moreover, as discussed herein, the Patents-in-Suit are directed to much more.

19 Finally, Defendants argue the inventions are not inventive because the Patents-in-Suit,
 20 allegedly, teach that existing VoIP systems “aggregated information, including routing tables, and
 21 used that information to route calls within or between public or private networks.” (*See* Motion at p.
 22 21 (citing *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1318, 1321 (Fed. Cir. 2016)). But
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Defendants distort the cited quotation, which actually describes PSTN nodes,¹⁷ and is prior art/“Background of the Invention.” (See Motion at p. 21 (citing Malek Decl., Exhibit 3 (‘005 Patent) at col. 1 ll. 20 – 44)).¹⁸ Moreover, Defendants’ characterization is untethered from the claim language. The Patents-in-Suit do not merely claim routing of calls over VoIP systems using information. To so limit the claims would actually vitiate important steps and elements from the claims. Moreover, courts have found claims involving communication and internet technology to be eligible where, like here, the inventions constituted unconventional solutions to technological problems. See, e.g., *Meetrix IP, LLC v. Citrix Systems, Inc.*, Case No. 1-16-cv-1033-LY, 2017 WL 5653950, *3 (N.D. Cal. July 27, 2017). Significantly, in *Meetrix IP*, the claims were deemed eligible notwithstanding that the solution “include[d] the use of generic components, including PSTN, VoIP, IP, and VPN” because the limitations worked together to operate in an unconventional manner. *Id.*

2. The Claimed Solution Solves Problems Rooted in Computer Network Technology.

The claims solve problems necessarily rooted in network technology and are eligible for the same reason that the claims in *DDR Holdings* were found eligible by the Federal Circuit. *DDR Holdings*, 773 F.3d at 1257, 1259 (holding that “[w]hen the limitations of the [] asserted claims are taken together as an ordered combination, the claims recite an invention that is not merely” routine and conventional”). For example, Claim 1 of the ‘815 Patent recites a process facilitating the interoperability of private and public communication networks in which a callee identifier is utilized to identify a destination on *either* the private or public networks based on the outcome of a prior caller-specific evaluation of the callee identifier and whether it met private or public classification criteria, to cause a call controller to setup a call using the appropriate infrastructure. Both the problem

¹⁷ (See Malek Decl., Exhibit 3 (‘005 Patent) at col. 1 ll. 36-40): “The PSTN network typically aggregates all information and traffic into a single location or node... and then passes it on... by maintaining route tables at the node.” (emphasis added)).

¹⁸ A reading of the cases cited by Defendants shows the broad brush that Defendants take in applying the cited case law. (See, e.g., Motion at p. 23 (citing *CyberFone Sys., LLC v. CNN Interactive Group, Inc.*, 558 Fed. Appx. 988 (Fed. Cir. 2014)) *CyberFone Sys.* is really just a case involving claims covering “obtaining, separating, and then sending information.” *Id.* at 993.

addressed and the claimed solution are rooted in computer networks. *See Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1306 (Fed. Cir. 2016). In *Amdocs*, the Federal Circuit found that while the components and functionality of the claims appeared to “be generic at first blush,” a further examination of the specification revealed that components and functionalities were “neither generic nor conventional.” *Id.* (finding eligibility where the claims “describe[d] a specific, unconventional technological solution narrowly drawn to withstand preemption concerns, to a technological problem”); *see also Messaging Gateway Sols., LLC v. Amdocs, Inc.*, No. CV 14-732-RGA, 2015 WL 1744343, at *6 (D. Del. Apr. 15, 2015) (the asserted claim “is firmly rooted in technology and is addressed to a specific problem arising in the realm of mobile device-to-Internet communication. Furthermore, it contains sufficient limitations to prevent it from preempting an abstract idea.”). Thus, irrespective of *Alice* Step 1, the claims *separately* comply with 35 U.S.C. § 101 because they contain an unconventional “inventive concept,” implemented in a specific manner (as recited in the asserted claims), in a new and useful *routing controller* which improves (*e.g.*, *automates* and renders *transparent*) the interoperability of two different communication networks.

C. Numerous Factual Disputes Show This Rule 12(b)(6) Motion is Premature.

Alternatively, Defendants’ Motion to Dismiss under § 101 should be denied as premature. Not only is claim construction required, but the factual record in this case is as-yet undeveloped. Given that the Motion is brought with a limited record under Fed. R. Civ. P. 12(b)(6), VoIP-Pal submits the following as a proffer of evidence and notes that the material is being submitted for illustrative purposes and is not intended to convert the Motion into a Fed. R. Civ. P. 56 motion for summary judgment. *See, e.g., Geinosky v. City of Chicago*, 675 F.3d 743, FN 1 (2012). If provided the opportunity to engage in discovery, VoIP-Pal would elicit evidence to show that a VoIP system is inherently a computer network,¹⁹ and that a VoIP system may use non-PSTN protocols such as

¹⁹ See, *e.g.*, Malek Decl., Exhibit 2 (‘815 Patent) at col. 1 ll. 15-25 (VoIP phones may be computers); col. 13 ll. 49-51 (VoIP phones may share networking resources such as Network Address Translation

1 Session Initiation Protocol (SIP) and a variety of caller/callee identifiers, including proprietary
 2 identifiers that are incompatible with PSTN callee identifiers.²⁰ Consequently, for any routing
 3 controller or call controller intended to interoperate with both private and public network elements,
 4 there is a *requirement* for computer-based methods of communication to bridge the divide. Indeed,
 5 the patented method could not be performed without computing equipment such as the routing
 6 controller. (*See generally*, Mangione-Smith Decl.)). Moreover, as stated in footnote 16 of this Brief,
 7 Defendants’ arguments about what is conventional should be regarded with skepticism absent a
 8 fulsome factual record based on submissions by Defendant Apple in various IPR proceedings.

10 The Federal Circuit has made clear that many of the inquiries under a § 101 analysis are
 11 deeply factual and not ripe for adjudication on an undeveloped record. *Berkheimer v. HP Inc.*, 881
 12 F.3d 1360, 1369 (Fed. Cir. 2018) (reversing the district court’s holding that the determination of
 13 “[w]hether something is well-understood, routine, and conventional to a skilled artisan at the time of
 14 the patent is a factual determination.”)); *see also Vaporstream, Inc. v. Snap Inc.*, No.
 15 217CV00220MLHKSX, 2018 WL 1116530, at *6 (C.D. Cal. Feb. 27, 2018)). Accordingly, for the
 16 foregoing reasons, VoIP-Pal respectfully requests, in the alternative, that Defendants’ Motion to
 17 Dismiss be denied as premature.

19 **III. CONCLUSION**

20 For the foregoing reasons, Plaintiff respectfully requests that Defendant’s Motion to Dismiss
 21 Plaintiff’s Complaint be denied.

25 with other computers); col. 12 ll. 50-67 (FIG. 1 illustrating a preferred embodiment of a VoIP
 26 system); col. 13 ll. 17-29 (Internet accessibility)).

27 ²⁰ See *e.g.*, Malek Decl., Exhibit 2 (‘815 Patent) at col. 13 ll. 25-27, col. 14 l. 7, col. 15 ll. 20-23 and
 28 FIG. 3 (phones use SIP protocol); col. 16 ll. 29-33 and col. 26 ll. 59-67 (call controller uses SIP
 protocol, as do communication nodes and gateways); See *id.* at Fig. 15 (358), Fig. 51 (904) (callee
 identifier may be a Digifonica number/username, or a PSTN compatible number); *see also id.* at col.
 17 ll. 13-15, col. 25 ll. 19-22 and Fig. 26 (606) (caller identifier may be a PSTN number or a system
 username); *id.* at col. 16 ll. 56-62 (caller identifier may be an IP address)).

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Respectfully submitted,

2 February 7, 2019

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true and correct copy of the above and foregoing PLAINTIFF VOIP-PAL'S OPPOSITION TO DEFENDANTS' CONSOLIDATED MOTION TO DISMISS (CORRECTED) has been served on February 12, 2019, to all counsel for Defendant through the Court's CM/ECF system.

/s/ Kevin N. Malek